

## Sustained Interest in E-Wallet Adoption among Malaysian Consumers

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To Link this Article: <http://dx.doi.org/10.6007/IJARBS/v13-i12/18630> DOI:10.6007/IJARBS/v13-i12/18630

**Published Date:** 10 December 2023

### Abstract

The surging prevalence of digital payment systems has heightened the curiosity to discern factors influencing the persistent inclination of Malaysian consumers towards e-wallet adoption. Consequently, this research aims to elucidate the catalysts underpinning this enduring inclination within the Malaysian context. Using a quantitative approach, data was garnered from a representative cohort of Malaysian consumers via a meticulously structured questionnaire. The investigation encompasses pivotal factors affecting e-wallet adoption, such as privacy concerns, favourable circumstances, social influence, perceived ubiquity, and customer satisfaction from the perspective of the Unified Theory of Acceptance and Use of Technology (UTAUT). By comprehensively analysing the 203 valid respondents, this research aspires to furnish profound insights into the rationale behind the sustained adoption intent of Malaysian consumers towards e-wallets. All the variables in this research showed a positive and significant effect on the continuous adoption intention of e-wallets. The findings of this research endeavour are projected to augment the extant knowledge reservoir about e-wallet acceptance and proffer pragmatic implications for e-wallet providers, policymakers, and pertinent stakeholders, thereby enhancing the advocacy and assimilation of e-wallets in Malaysia.

**Keywords:** E-wallets, Continuous Usage Intention, UTAUT, Malaysian Consumers, Consumer Behaviour

### Introduction

The proliferation of the digital economy has catalysed the emergence of electronic payment systems as a contemporary modality for transactional exchanges (Flavián et al., 2020). Within the realm of electronic payment systems, the electronic wallet (e-wallet), facilitating individuals to associate their bank cards with the digital repository for transactions, has garnered significant scholarly attention (Karim et al., 2020). The advantages offered by e-wallets, including convenience, efficiency, and cost-effectiveness, have prompted numerous

nations to integrate them into their routine transactional payment alternatives (Abbasi et al., 2022).

Motivated by the rapid adoption and the need for deeper understanding of consumer behaviours towards e-wallets, this study focuses on the factors influencing their sustained use. While initial adoption has been widely studied, there's a gap in understanding what keeps consumer engaged with e-wallets over the long term. This research aims to fill this gap by exploring the sustained usage of e-wallets.

Various e-wallet platforms, encompassing mobile internet shopping applications, transactional services, and offerings available on platforms like the Apple Store and Play Store, have emerged. Literature indicates that e-wallets have witnessed augmented traction in developing countries, given the expansive opportunities presented for mobile-based purchases. Among these, e-wallets have revolutionized the paradigm of financial transactions paradigm.

This study's contribution lies in its focus on the Malaysian market, a significant player in the e-wallet domain. In Malaysia, notable e-wallets encompass Touch and Go (TnG) e-wallet, GrabPay Wallet, JomPay, WeChat Pay, and Boost Pay. Mirroring the merits of other electronic payment systems, e-wallets confer attributes of simplicity and agility, as highlighted by Kow et al (2017), along with unhindered transactional capabilities irrespective of time or location, as underscored by (Qasim and Abu-Shanab, 2016). This has invariably resulted in an uptick in application adoptions. Key determinants like perceived ease of use (PEU) and perceived usefulness (PU) have been explored in the context of user acceptance and their sustained inclination towards e-wallet usage, as delineated in studies by (Cho, 2016; Makanyeza and Mutambayashata, 2018; Liébana-Cabanillas et al., 2015).

Given its pronounced smartphone and internet penetration rates, a sizable youth demographic well-versed in technology, and a significantly banked populace, Malaysia emerges as a focal market for e-wallet assimilation among its consumers (Gomes, 2022). Thus, the Malaysian government started to motivate users to adopt the digitalized payment spectrum and give bonuses and incentives to newly registered users. To align with the policy, both banking and non-banking entities have emerged, offering a gamut of mobile payment services. Concurrently, a diverse array of merchants, spanning retailers, e-commerce entities, and transport providers now accept e-wallet payments, signifying the industry's robust growth (Sivathanu, 2019).

While many individuals are enticed to download e-wallet applications driven by governmental incentives, their engagement often dwindles after the consumption of these benefits. Research on mobile application retention underscores this trend: a study by Ding and Chai (2015) revealed a sharp decline in user retention rates, with only 24% persisting post three months of installation, which further drops to 14% after six months, and a mere 4% after a year. Notably, while past research has predominantly centred on the initial adoption of e-wallets (Qasim and Abu-Shanab, 2016; Teng and Khong, 2021), there remains a conspicuous lacuna regarding the sustained use of these platforms. This necessitates a comprehensive exploration into the determinants that govern the prolonged engagement with e-wallets.

Addressing this research gap, this study posits about the factors influencing sustained e-wallet usage. This investigation enhances the academic discourse by incorporating variables like perceived ubiquity and satisfaction as drivers of continuous intention to adopt e-wallet, potentially revealing innovative insights into sustained adoption behaviours of consumers regarding E-wallet services. This inclusion could further refine and broaden the Unified Theory of Acceptance and Use of Technology (UTAUT), deepening our understanding of technology

adoption through the lens of consumer perspectives. Consequently, this research seeks to elucidate the interplay between the augmented UTAUT elements and the ongoing inclination to embrace E-wallet services within the Malaysian demographic.

## **Literature Review**

### **Theoretical Underpinnings**

Numerous theoretical models presented in the academic literature forecast user behavior concerning technological adoption. Prominent among these are the Theory of Reasoned Action (TRA), the Technology Acceptance Model (TAM), the Theory of Planned Behavior (TPB), and the Unified Theory of Acceptance and Use of Technology (UTAUT). TAM stands out as a frequently invoked framework to understand user acceptance and utilization of new technology, succeeded closely by UTAUT (Chawla and Joshi, 2020). Davis (1989) initially proposed TAM as a conceptual tool to evaluate and foresee users' propensity to embrace novel technologies (Tenk et al., 2020). Advancing this model, Venkatesh et al (2003) integrated additional components, culminating in the development of UTAUT. Central to UTAUT are four key constructs: Performance Expectancy (PE), Effort Expectancy (EE), Social Influence (SI), and Facilitating Conditions (FC). Several scholarly investigations into contactless payment methodologies have employed the UTAUT framework as their foundational premise. This encompasses areas such as mobile banking (Alalwan et al., 2017), mobile wallet (Chawla and Joshi, 2020), M-payment system (Patil et al., 2020), and NFC-integrated M-payments (Khalilzadeh et al., 2017). Thus, this study leverages the UTAUT framework to delve into the inclinations of Malaysian youth toward the adoption and actual utilization of contemporary cashless payment mechanisms.

### **E-wallet**

The E-wallet, leveraging NFC technology embedded in smartphones, emerges as a paramount tool for facilitating swift and secure transactions without the need for physical cash or debit cards (Pal et al., 2015). This transition to digital payment methods marks a significant shift in consumer behavior, underscoring the need for comprehensive research into the factors influencing e-wallet adoption and usage. As delineated by Qasim and Abu-Shanab (2016), an E-wallet is conceptualized as a mobile application installed by users, enabling them to execute diverse financial transactions. Furthermore, Abbasi et al (2022) posit that employing avant-garde payment methodologies, including e-wallets, QR codes, and cloud computing, augments the efficacy and efficiency of future consumer transactions.

An investigation by Al-Amri et al (2018) into bank customers' inclination towards using mobile wallets via smartphones revealed that factors such as perceived ease of use, perceived risk, perceived usefulness, and trust positively influence the adoption intention to use NFC-based mobile wallets proximity payments. In contrast, Madan and Yadav (2016) found perceived risk as an insignificant factor influencing the usage intention to adopt mobile wallets. Those outcomes suggest that telecommunications stakeholders and businesses involved in payment design should prioritize multilayer security systems to mitigate potential risks for mobile wallet users.

During the pandemic time, and along with government support, the adoption of e-wallets in Malaysia has become more common. The research of Malik and Annuar (2021) utilized TAM to identify the adoption intention of e-wallets in Malaysia, and the findings indicated that perceived usefulness, perceived ease of use, and rewards directly influence the intention to use e-wallets. Conversely, perceived risk doesn't have a direct impact on the intention to use

e-wallets. Given these developments, the motivation for this study stems from a need to address the evident gap in literature regarding the continuous usage of electronic wallets in Malaysia. Hence, this study employed the UTAUT theory to examine the attributes that influence Malaysian continuance usage intention of e-wallets, aiming to provide critical insights that can guide future innovations and policies in the field of digital payments.

### **Performance Expectancy**

Performance expectancy is the extent to which an individual believes that using a specific technology will enhance their job performance (Venkatesh et al., 2003). As defined by Hamzah et al (2023), performance expectancy in the context of e-wallet services for point-of-sale transactions. This suggests that consumers evaluate the efficacy of tech-mediated tasks by assessing their benefits in terms of efficiency, effectiveness, and productivity. A technology's practical value is perceived positively when its advantage outweighs its costs. About e-wallets, various studies have found a positive link between users' intention to use and their performance expectations of e-wallets (de Luna et al., 2019; Le, 2021). Therefore, plausible to posit that the perceived utility of e-wallets could impact consumer satisfaction and their inclination to use them. Based on this, the study presents the following hypothesis: H1: Performance expectancy has a significant and positive impact on satisfaction with e-wallet services.

### **Effort Expectancy**

Effort expectancy pertains to the perceived ease with which users can learn and engage with technological components (Venkatesh et al., 2012). Within the context of this study, effort expectancy is defined as the extent to which consumers perceive the use of e-wallets in routine transactions as straightforward and effortless. Recent investigations, such as those by Yang et al (2021), have identified a connection between effort expectancy and the inclination to adopt contemporary cashless payment mechanisms like e-wallets. Alalwan et al (2017) posited that the easier the e-wallet is to use, the higher the consumer satisfaction and intention to use it. Moreover, a study conducted by Namahoot and Jantasri (2023) confirmed a significant association between effort expectancy and user satisfaction. They argued that when a technology is perceived as user-friendly, consumers deem it more proficient for conducting tasks. Such a system, when perceived as accessible and requiring minimal effort, tends to be utilized more, thereby influencing the effort expectancy associated with e-wallets. Building on these findings, the study proposes the following hypothesis

H2: Effort expectancy has a significant and positive impact on satisfaction with e-wallet services.

### **Perceived Security**

Perceived security, as articulated by Enck et al (2009), encompasses users' conviction that their data will be safeguarded and untouched by unauthorized parties during online activities. It encapsulates users' holistic understanding of safety while participating in digital transactions. Moreover, the notion of perceived security in the context of e-wallet adoption is dynamic and tends to fortify progressively (Khalilzadeh et al., 2017). This denotes that users' evaluations of the security attributes of a system continuously refine their security perceptions, augmenting the degree of perceived security with time. As security measures enhance, there could be a corresponding uptick in consumers' utilization of e-wallets. Firms,

armed with insights on robust perceived security, can craft offerings aligning with consumer preferences in the cashless payment domain (Rahman et al., 2020). Paradoxically, a transaction, even if impeccably secure, might not necessarily broadcast its security measures to users, leading to potential misconceptions. Given the relevance of e-wallets, it becomes pivotal to delineate perceived security metrics and explore their nexus with satisfaction. Consequently, this study posits the subsequent hypothesis:

H3: Perceived security has a significant and positive impact on satisfaction with e-wallet services.

### **Facilitating Conditions**

Facilitating conditions are conceptualized as the set of factors and technical resources that bolster the transition to cashless payment methods (Chawla and Joshi, 2020). Such conditions can range from training sessions on mobile banking usage to an individual's inherent capability and resources. Mastery of certain skills, such as employing payment applications via e-wallets and text messaging, is pivotal and is typically encapsulated under the term "facilitating conditions" to make seamless cashless transactions feasible (Munikrishnan et al., 2022). Prior research, including the study by Khechine et al. (2020), suggests that these facilitating conditions profoundly impact the technology adoption rate. Zhou et al. (2010) work further corroborates this, asserting that facilitating conditions play a significant role in endorsing mobile banking adoption. Consequently, this construct may be pivotal in shaping the continuous intention of consumers to embrace e-wallets. Gleaning insights from these empirical studies, one can infer a strong likelihood of facilitating conditions exerting a notable influence on the persistent inclination to adopt e-wallets. This leads to the postulation of the subsequent hypothesis:

H4: Facilitating conditions have a significant and positive impact on continuous intention to use e-wallet services.

### **Privacy Concerns**

According to Bélanger and James (2020), privacy can be defined as an individual's ability to establish, manage, and enforce guidelines about the handling of their data and interactions with others. Given the nature of e-wallet transactions, where sensitive personal data is relayed through mobile networks involving multiple entities, consumers often express reservations about the protection of their confidential information (Al-Natour et al., 2020). Typically, e-wallet applications, acting as third-party payment platforms, solicit an array of personal details from users. However, there is frequently an ambiguity surrounding how this data is processed and employed. Shaw et al (2022) posited that if e-wallet providers misuse personal information, either knowingly or unknowingly, it could lead to a diminished continuous intention among consumers to adopt e-wallets. In light of this, our study enriches the research paradigm by integrating privacy concerns, leading to the formulation of the following hypothesis:

H5: Privacy concerns have a significant and inverse impact on continuous intention to use e-wallet services.

### **Social Influence**

Drawing from Peng et al (2017), the role of social influence has been comprehensively examined in consumers' productivity for e-wallet adoption. When confronted with the prospect of integrating a novel technological solution stemming from the inherent

uncertainties of the innovation. To mitigate such apprehensions, individuals tend to turn to their social circles for insights and validation (Burkhardt and Brass, 1990). Consequently, when a significant segment within a social cohort lean towards e-wallet acceptance, it may create a domino effect, prompting broader adoption within the group. This phenomenon is particularly evident in popular e-wallet platforms like Touch n Go E-wallet, MAE by Maybank, and Boost. E-wallets have ingeniously embedded the essence of social influence by integrating features akin to social media, such as a payment stream reminiscent of a Facebook newsfeed, allowing users to witness peers' monetary interactions. Extant literature, including studies by Rahman et al (2020); Jung et al (2020); Yang et al (2021), has delved into the sway of social influence on the uptake of e-wallet and mobile payment services. Shin (2009) corroborated that social influence exerts a favorable impact on the intent to utilize mobile payment services. Considering this evidence, the ensuing hypothesis is posited:

H6: Social influence has a significant and positive impact on continuous intention to use e-wallet services.

### **Perceived Ubiquity**

In the work of Johnson et al (2018), ubiquity is articulated as the capacity of users to access specific services, like e-wallets, irrespective of time or location. The past few decades have witnessed a profound shift in communication technology. From the transition from mobile phones to smartphones and the evolution from desktops to portable laptops and tablets, the widespread adoption of these devices has underscored the increasing significance of ubiquitous consumption. Clarke III (2001) posited that this surge in mobile device proliferation signaled a move from traditional payment modalities to e-wallets, underscoring key catalysts for m-commerce growth, including pervasiveness, convenience, localization, and customization. The inherent omnipresence of these devices accentuated the unrestrained accessibility of information. For the practical adoption of e-wallets, a substantial number of vendors must facilitate e-wallet transactions, thereby bolstering user confidence to deploy their mobile wallets for diverse transactions, irrespective of time or place. Such an expansive network of retailers empowers consumers to perceive e-wallets as a convenient and universally accepted payment mode across diverse establishments. This paves the way for consumers to experience unparalleled ease and assurance in their monetary dealings, reinforced by the notion that e-wallets can be seamlessly used without limitations. As the spectrum of e-wallet-accepting establishments expands, users garner heightened confidence in transacting across diverse vendors and service entities (Okazaki and Mendez, 2013). Drawing from the findings of Shaw et al (2022) which underscored the affirmative impact of perceived ubiquity on the sustained intent to integrate e-wallets, the subsequent hypothesis is proposed:

H7: Perceived ubiquity has a significant and positive impact on continuous intention to use e-wallet services.

### **Satisfaction**

Oliver (1980), underpinning the cognitive theory, posited that an individual's intent can be encapsulated by the notion of satisfaction. Satisfaction is conceptualized as a mental or emotional state derived from the evaluation of the gap between anticipations and actual outcomes (Bhattacharjee, 2001). Research spearheaded by Daragmeh et al. (2021) and Meena and Sarabhai (2023) corroborates that satisfaction exerts a positive influence on consumers' intentions. Post-adoption, satisfaction emerges as pivotal in evaluating continued

use and acts as a barometer for the likelihood of sustained e-wallet utilization. In essence, if consumers discern that their interactions with e-wallets resonate with their initial anticipations, it epitomizes an enduring commitment to the system. An inquiry by Daragmeh et al (2021) illuminates that the frequency of e-wallet engagements amplifies in tandem with heightened consumer satisfaction. Therefore, the ensuing hypothesis is propounded:

H8: Satisfaction towards e-wallet services has a significant and positive impact on continuous intention to use e-wallets services.

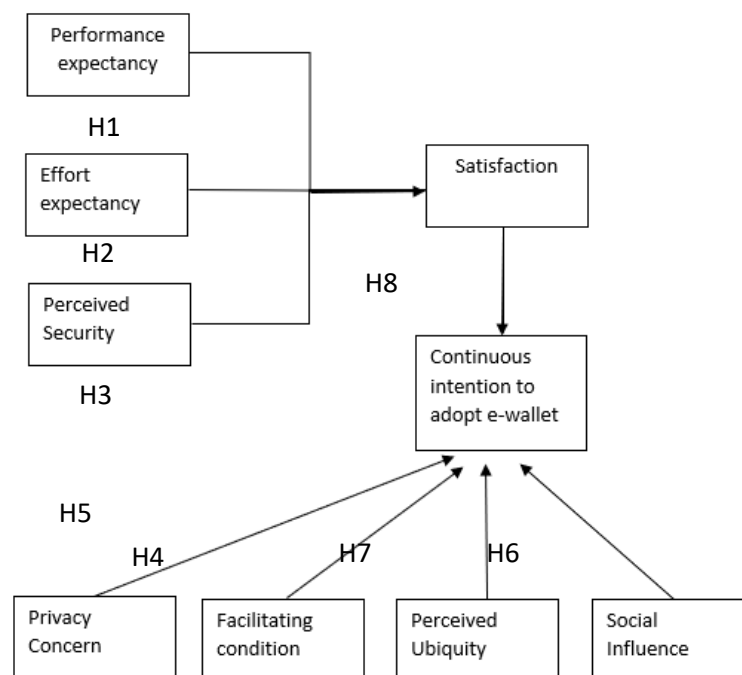


Figure 1: Research Framework

## Methodology

This study empirically examined the factors influencing the continuous intention of Malaysian consumers to use e-wallets. The research model, replete with various hypotheses, underscores the study's quantitative nature. Data collection utilized a Google Form questionnaire distributed over the course of a month, targeted Malaysians familiar or proficient in using e-wallet for payments. Their know-how in e-wallet usage ensured credible responses vital for this research.

A total of 203 e-wallet users in Malaysia participated. Owing to its cost-efficiency, speed, and simplicity (Brick, 2011), a non-probability sampling method was chosen specifically purposive sampling. This questionnaire was disseminated via social media platforms like WhatsApp, Instagram, and Telegram, benefiting from easy accessibility, time efficiency, and cost-effectiveness.

The questionnaire primarily employed a 7-point Likert scale, ranging from "strongly disagree" (1) to "Strongly agree" (7), excluding demographic and preliminary questions. Measurement items for performance expectancy are adapted from (Boonsiritomachai and Pitchayadejanant, 2019; Oliveira et al., 2016). Items for effort expectancy are adapted from (Venkatesh et al., 2003). Items for social influence are adapted from (Boonsiritomachai and

Pitchayadejanant, 2019). Items for privacy concerns are adapted from (Khan and Haleem, 2015; de Kerviler et al., 2016; Zhang et al., 2012). Items for perceived security are adapted from (Chawla and Joshi, 2020). Items for perceived ubiquity are adapted from (Shaw et al., 2022). Items for facilitating conditions are adapted from (Chawla and Joshi, 2020; Venkatesh et al., 2003). Items for satisfaction are adapted from (Bhattacharjee, 2001). Items for continuous intention to adopt e-wallet are adapted from (Alraimi et al., 2015).

## Data Analysis

### Profile of the Respondents

There are 203 respondents from our survey, with 54.2% being male. Respondents were grouped into four age categories, and 61.1% were aged between 20 to 30, reflecting the younger generation's inclination towards e-wallets due to technological advancements. Significantly, 69.5% held a degree, and all had experience with e-wallets. The predominant e-wallets among participants were Touch n Go and MAE (Maybank), with 86 and 80 users respectively.

### Reliability Analysis

In this section, we assess the reliability of the research instruments using the criteria that Sekaran and Bougie (2003) posited, which considers a Cronbach's Alpha score above 0.5 as reliable. In this study, the Cronbach Alpha values for each variable are performance expectancy (0.842), effort expectancy (0.845), social influence (0.840), facilitating condition (0.824), privacy concern (0.964), perceived security (0.867), perceived ubiquity (0.773), satisfaction (0.821), and continuous intention to use e-wallet (0.872). hence, the data garnered is credible and can be confidently employed for this study. The Cronbach's Alpha value surpassing the 0.5 threshold reaffirms this reliability, ensuring the results can be utilized in subsequent research phases.

### Descriptive of Main Variables

Table 1 provides a descriptive analysis of the primary variables. The descriptive analysis presents a concise summary of the research metrics and central statistics of the study. This analysis emphasizes the central tendencies of variables, and the findings are delineated below

Table 1

#### *Summary of descriptive statistics*

| No. | Variables                               | Mean   | Std. Deviation |
|-----|---|--------|----------------|
| 1.  | Performance Expectancy                  | 6.1342 | 0.7721         |
| 2.  | Effort Expectancy                       | 6.1958 | 0.7472         |
| 3.  | Social Influence                        | 6.1059 | 0.7928         |
| 4.  | Facilitating Condition                  | 6.1552 | 0.7549         |
| 5.  | Privacy Concern                         | 4.2155 | 1.7451         |
| 6.  | Perceived Security                      | 6.0493 | 0.9042         |
| 7.  | Perceived Ubiquity                      | 4.5846 | 0.5820         |
| 8.  | Satisfaction                            | 4.6232 | 0.5161         |
| 9.  | Continuous Intention to adopt e-wallets | 6.4138 | 0.7341         |



### Correlation Analysis

Table 2 reveals significant correlations between performance expectancy, effort expectancy, and perceived security with satisfaction, all at a value below 0.05 significance level. Conversely, while most variables relate significantly to the continuous intention to adopt e-wallets, privacy concern (Pearson correlation of 0.07 and significance level of 0.444) does not. Notably, the correlation between satisfaction and continuous intention to adopt e-wallet is the strongest at 0.855\*\*, while the relationship between privacy concern and e-wallet adoption intention is the weakest at 0.07.

Table 2  
*Correlation analysis*

|  | 1      | 2      | 3      | 4      | 5    | 6      | 7      | 8      | 9 |
|--|--------|--------|--------|--------|------|--------|--------|--------|---|
| 1. Performance Expectancy                  | 1      |        |        |        |      |        |        |        |   |
| 2. Effort Expectancy                       | .729** | 1      |        |        |      |        |        |        |   |
| 3. Social Influence                        | .671** | .658** | 1      |        |      |        |        |        |   |
| 4. Facilitating Conditions                 | .691** | .700** | .696** | 1      |      |        |        |        |   |
| 5. Privacy Concerns                        | .226** | .259** | .141** | .198** | 1    |        |        |        |   |
| 6. Perceived Security                      | .590** | .552** | .682** | .674** | .045 | 1      |        |        |   |
| 7. Perceived Ubiquity                      | .571** | .518** | .698** | .600** | .032 | .716** | 1      |        |   |
| 8. Satisfaction                            | .678** | .642** | .652** | .700** | .025 | .700** | .755** | 1      |   |
| 9. Continuous Intention to adopt e-wallets | .724** | .675** | .656** | .747** | .007 | .740** | .720** | .855** | 1 |

\*\* Correlation is significant at the 0.01 level (2-tailed) \* Correlation is significant at the 0.05 level (2-tailed)

### Multiple Regression Analysis

The multiple regression analysis assessed the relationship between performance expectancy, effort expectancy, and perceived security toward satisfaction in e-wallet adoption intention. The ANOVA table yielded a significance of  $p < 0.05$  and an F value of 147.457. the R<sup>2</sup> value was 0.694, suggesting that about 69.4% of satisfaction variance is explained by the three predictors. The remaining 30.6% of the variance is unaccounted for. The adjusted R<sup>2</sup> stood at 0.689. The Durban-Watson statistic of 1.794, within the 1.5 to 2.5 range, confirmed the absence of error term autocorrelation. Multicollinearity wasn't an issue, given the variance inflation factor (VIF) values below 10 and condition indices and P-P plot observations, while the scatter plot ensured homoscedasticity and consistent variance. T-values assess population means. For hypotheses H1, H2, and H3, t-values exceeding 1.645 ( $t > 1.645$ ) leads to rejecting the null hypothesis (H0). The recorded t-values for H1 (4.268), H2 (3.497), and H3 (9.665) all surpassed the threshold, thus supporting the hypotheses. Moreover, with p-values for all hypotheses being less than 0.01, they were deemed statistically significant. The

variables exhibited significance at  $p < 0.05$  with 90% confidence. Performance expectancy had a beta ( $\beta$ ) of 0.262, effort expectancy a  $\beta$  of 0.207, and perceived security a  $\beta$  of 0.488, implying a positive influence on satisfaction regarding e-wallet adoption.

The second multiple regression analysis sought to discern the relationship between facilitating conditions, privacy concerns, social influence, perceived ubiquity, and satisfaction with the continuous intention to adopt e-wallets. The ANOVA table results affirmed a well-fitting model with a significance level of  $p = 0.05$  and an f-value of 195.447. The overall model was statistically significant with a p-value of 0.000 for the f-test. The regression model exhibited an R<sup>2</sup> value of 0.835, suggesting that the aforementioned factors explain approximately 83.5% of the variance in continuous e-wallet adoption intent, leaving 16.5% unexplained. The adjusted R<sup>2</sup> value, accounting for the number of predictors, was 0.831. With a Durbin-Watson value of 1.984, the study indicated no autocorrelation among error terms, ensuring favorable conditions for the analysis. Multicollinearity was not an issue, demonstrated by variance inflation factor (VIF) values below 10 and condition indices beneath the 30-safety threshold.

Sample normality was validated through a bell-shaped histogram, and P-P plots confirmed the data adhered closely to a normal distribution. Scatter plots showed consistent error term variance, further affirming the linearity assumption. In this analysis, five hypotheses (H4-H8) pertained to the factors: facilitating conditions, privacy concerns, social influence, perceived ubiquity, and satisfaction. Variables with t-values greater than 1.645 were considered significant. Thus, all the variables possessed t-values exceeding the threshold, supporting hypotheses H4 to H8. Regarding p-values, significance is achieved when  $p < 0.05$ . The given data from Table 3 presented p-values for facilitating condition, privacy concern, social influence, perceived ubiquity, and satisfaction as  $p < 0.01$ , 0.014, and  $p < 0.01$ . Thus, H4, H5, H6, H7, and H8 are substantiated, indicating these factors significantly impact the intention to continue adopting e-wallets.

Table 3

*Multiple Regression Analysis*

| Hypothesis            | Variable                | B      | Std Error | Beta   | t-value | p-value    | Lower Bound | Upper Bound | VIF   | Decisions |
|-----------------------|-------------------------|--------|-----------|--------|---------|------------|-------------|-------------|-------|-----------|
| Multiple regression 1 |                         |        |           |        |         |            |             |             |       |           |
| H1                    | Performance Expectancy  | 0.17   | 0.04      | 0.262  | 4.268   | $p < 0.01$ | 0.092       | 0.249       | 2.404 | Supported |
| H2                    | Effort Expectancy       | 0.139  | 0.04      | 0.207  | 3.497   | $p < 0.01$ | 0.061       | 0.218       | 2.239 | Supported |
| H3                    | Perceived Security      | 0.029  | 0.029     | 0.488  | 9.665   | $p < 0.01$ | 0.221       | 0.334       | 1.627 | Supported |
| Multiple regression 2 |                         |        |           |        |         |            |             |             |       |           |
| H4                    | Facilitating Conditions | 0.152  | 0.048     | 0.158  | 3.168   | $p < 0.01$ | 0.057       | 0.247       | 2.919 | Supported |
| H5                    | Privacy Concerns        | -0.039 | 0.013     | -0.091 | -3.015  | $p < 0.01$ | -0.064      | -0.013      | 1.074 | Supported |
| H6                    | Social Influence        | 0.098  | 0.044     | 0.102  | 2.212   | 0.014      | 0.011       | 0.185       | 2.512 | Supported |
| H7                    | Perceived Ubiquity      | 0.469  | 0.075     | 0.327  | 6.219   | $p < 0.01$ | 0.32        | 0.618       | 3.229 | Supported |
| H8                    | Satisfaction            | 0.618  | 0.079     | 0.427  | 7.831   | $p < 0.01$ | 0.462       | 0.773       | 3.474 | Supported |

**Discussion**

In this study, a positive relationship was observed between performance expectancy, satisfaction, and the continued intention to adopt e-wallets, aligning with findings by (Oliveira et al., 2016; Munikrishnan et al., 2022). This reinforces the understanding of performance expectancy as a key driver of e-wallet adoption, thus contributing to the refinement of e-wallet adoption models. The convenience and speed of transactions foster a perception of e-wallets as efficient and reliable among Malaysian consumers, thus supporting H1. The analysis also revealed a significant relationship between effort expectancy, satisfaction, and the ongoing intention to adopt e-wallets. Consistent with Namahoot and Jantasri (2023), this indicates that e-wallet usability and convenience bolster user satisfaction, subsequently promoting continued use. This finding contributes to the literature by emphasizing the importance of user experience in the continued adoption of e-wallets. Effort expectancy is crucial to shaping satisfaction and continued e-wallet adoption, validating hypothesis H2. Perceived security profoundly affects satisfaction and the continuous intention to adopt e-wallets, mirroring results from prior studies (Munikrishnan et al., 2022; Oliveira et al., 2016). This study extends the understanding of the critical role of security in sustaining e-wallet usage, a vital aspect in the current digital age. Security in financial transactions significantly determines consumers' satisfaction and intention, supporting hypothesis H3.

Facilitating conditions, as per Khechine et al (2020); Zhou et al (2010), play a pivotal role in continuous e-wallet adoption, underlying hypothesis H4. This underlines the necessity of supportive infrastructures for e-wallet adoption, adding a practical dimension to the research. Regarding privacy concerns, findings resonated with Al-Natour et al (2020), emphasizing the importance of data protection in e-wallet services. This aspect of this study contributes to the ongoing discussion on privacy concerns in digital payments. These concerns can hinder adoption intentions, affirming hypothesis H5. Evidence showed social influence, echoed in prior research fields (Jung et al., 2020; Rahman et al., 2020), as instrumental in e-wallet adoption, corroborating hypothesis H6. Perceived ubiquity, consistent with Shaw et al (2022), exhibited a direct positive relationship with e-wallet adoption, contributing to the body of knowledge on the role of ubiquity in technology adoption. This highlights the versatility of e-wallets, thereby supporting hypothesis H7. Lastly, satisfaction significantly influenced the continuous intention to adopt e-wallets, aligning with (Daragmeh et al., 2021). Factors contributing to satisfaction include performance expectancy, effort expectancy, and perceived security, affirming hypothesis H8. This finding enhances our understanding of the multifaceted nature of user satisfaction in the context of e-wallet adoption, thus making a significant contribution to the field.

**Implications****Theoretical Implications**

Amid the rapid progression of financial technology, e-wallets are expected to experience a swift surge in adoption rates. To discern the key determinants influencing Malaysian consumers' sustained intention to utilize e-wallets, this study formulated a robust research framework rooted in the acclaimed UTAUT theory. Notably, this research augmented the traditional framework by integrating three pivotal factors: privacy concern, perceived security, and perceived ubiquity. The findings confirm that these components considerably shape consumers' ongoing inclination toward e-wallet adoption. The empirical outcomes derived from the adapted model present a compelling predictive capacity concerning consumers' consistent intention to employ e-wallets. Specifically, performance expectancy,

effort expectancy, and perceived security emerged as potent indicators of consumer satisfaction. The results affirmatively demonstrate that these three variables have a significant positive correlation with satisfaction. Overall, the refined research model presented in this study offers a valuable foundation for subsequent researchers exploring analogous topics.

### **Practical Implications**

This research investigated factors influencing consumers' sustained intention to adopt e-wallets. Exploring effective strategies to foster e-wallet adoption is consequential. The study encompasses variables such as performance expectancy, effort expectancy, perceived security, facilitating conditions, social influence, privacy concerns, and perceived ubiquity, with satisfaction serving as a mediating variable. Given the convenience e-wallets offer to Malaysian users, we proffer recommendations to bolster continued utilization. Findings indicate that performance expectancy, effort expectancy, and perceived security hold significant positive correlations with satisfaction relating to ongoing e-wallet adoption. Consequently, e-wallet providers must refine application functionalities and enhance performance to ensure user contentment. Streamlining transaction procedures and ensuring ease of learning can reduce user effort. Continuous security upgrades are imperative to assure secure transactions, fostering users' intent to persist with e-wallet adoption.

Privacy emerges as a pivotal determinant. The negative relationship between privacy concerns and adoption intention necessitates stringent authentication measures. Employing biometrics, OTPs, or facial scans can fortify security, alleviating concerns about unauthorized access. Seamless integration with current payment infrastructures, such as POS systems and online platforms, can further prompt adoption by simplifying the user experience. Contrastingly, social influence was found to be non-significant. This suggests that word-of-mouth endorsements from acquaintances don't necessarily steer Malaysian consumers' e-wallet adoption intentions. A more strategic approach would involve collaboration between e-wallet providers and government bodies championing digital literacy. Joint initiatives can spotlight e-wallet benefits, motivating sustained adoption. Lastly, to augment perceived ubiquity, e-wallet enterprises should amplify their merchant affiliations. Partnering with diverse retailers and service outlets accentuates e-wallets' widespread acceptability, endorsing their use for manifold transactions.

### **Limitation and Future Recommendation**

#### **Limitations**

This study encountered several limitations. Firstly, the reliance on quantitative data gathered via Google Forms yielded restricted outcomes. The questionnaire's design, with its full answer choices, may not capture comprehensive data, or fully represent the situation. Secondly, due to time and resource constraints, our sample size was restricted to 203 respondents. Considering the vast population of e-wallet users, this sample might not accurately reflect the broader Malaysian consumer perspective. Finally, respondents' engagement was a challenge. Many were reluctant to complete the questionnaire, possibly due to its length, while others may have hurriedly selected answers without thorough consideration, potentially compromising the data's accuracy.

### Recommendation for Future Research

There are several recommendations proposed for future research. Firstly, integrate qualitative methods, like interviews, with quantitative approaches to achieve a deeper understanding of the subject. Also, ensure surveys are completed willingly by participants to reduce biases. Emphasize the voluntary nature of participation and ensure respondents' comfort in sharing. Thirdly, update the research mode by incorporating recent findings on new variables to enhance the study's depth. Furthermore, consider increasing the sample size, possibly from 300 to 500 respondents, to boost the findings' representativeness and generalizability. Lastly, pursue diverse representation across ethnicities to ensure comprehensive insights, enriching the data's accuracy and inclusivity.

### Conclusion

This study explores factors influencing the sustained intention of consumers to adopt e-wallets. Out of the eight examined variables, all were found to be significant. The findings indicate that certain factors previously researched, do influence the adoption intention. This research offers insights for the government and retailers on strategies to promote e-wallet adoption in Malaysia. Consequently, these insights can guide policy formulation for future e-wallet advancements. Despite Malaysians being at the nascent stages of e-wallet adoption, there's a palpable interest, particularly if it ensures quicker and more convenient payments. Nevertheless, Malaysia lacks sufficient e-wallet promotion and education, leading to hesitations in sufficient e-wallet promotion and education, leading to hesitations in its adoption. The study's limitations can guide future research endeavors, complemented by the earlier provided recommendations.

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